

Clean Copy of Amended Claims 1, 14 and 18

1. (Currently amended) A method for forming a coating film, comprising the steps of:

 applying a raw material of a low dielectric constant onto a surface of a plate-like material to be
 treated;

 reducing oxygen concentration in the atmosphere surrounding the plate-like material to be less
 than or equal to 1% before a surface temperature of said plate-like material to be treated rises to 200°C;
 thereafter

 heating said plate-like material to be treated to a temperature greater than or equal to 400°C;
 and then

 maintaining the oxygen content in the atmosphere to be less than or equal to 1% until the
 surface temperature of said plate-like material to be treated lowers to 200°C;

 said raw material of a low dielectric constant is an organic SOG having a carbon content of 5-
 25 atomic weight %.

14. (Currently amended) A method for forming a coating film, comprising the steps of:

 applying a raw material of a low dielectric constant onto a surface of a plate-like material to be
 treated;

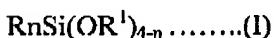
 reducing oxygen concentration in the atmosphere surrounding the plate-like material to be less
 than or equal to 1% before a surface temperature of said plate-like material to be treated rises to 200°C;
 thereafter

 heating said plate-like material to be treated to a temperature greater than or equal to 400°C;
 and then

maintaining the oxygen content in the atmosphere to be less than or equal to 1% until the surface temperature of said plate-like material to be treated lowers to 200°C;

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CONT.

said raw material is an organic SOG obtained by hydrolyzing and condensing at least one alkoxysilane compound expressed by the following equation (I) into an organic solvent under an acid catalyst,



where R is an alkyl group or an aryl group having a carbon number of 1-4, , R¹ is an alkyl group having a carbon number of 1-4, and n is an integer of 0-2.

18. (Currently amended) A method for forming a coating film, comprising the steps of:

applying a raw material of a low dielectric constant onto a surface of a plate-like material to be treated;

reducing oxygen concentration in the atmosphere surrounding the plate-like material to be less than or equal to 1% before a surface temperature of said plate-like material to be treated rises to 200°C; thereafter

heating said plate-like material to be treated to a temperature greater than or equal to 400°C; and then

maintaining the oxygen content in the atmosphere to be less than or equal to 1% until the surface temperature of said plate-like material to be treated lowers to 200°C;

said raw material is an organic SOG obtained by hydrolyzing and condensing at least one alkoxysilane compound expressed by the following equation (II) into an organic solvent under an acid catalyst,

$$\text{RnSi(OR')}_3 \dots \dots \text{(II)}$$

C3
cont.

where R is an alkyl group or an aryl group having a carbon number of 1-4, and R¹ is an alkyl group having a carbon number of 1-4.

New Claims 20-22

20. (new) A method for forming a coating film as defined in claim 14, wherein said raw material is an organic SOG obtained by hydrolyzing and condensing into an organic solvent under an acid catalyst the following:

one alkoxysilane compound expressed by the equation (1) where n=1; or

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one alkoxy silane compound expressed by the equation (I) where $n=1$ and one alkoxy silane compound expressed by the equation (I) where $n=0$; or

one alkoxy silane compound expressed by the equation (I) where $n=1$, one alkoxy silane compound expressed by the equation (I) where $n=2$, and one alkoxy silane compound expressed by the equation (I) where $n=0$.

21. (new) A method for forming a coating film as defined in claim 14, wherein said raw material is an organic SOG obtained by hydrolyzing and condensing into an organic solvent under an acid catalyst a monoalkyl trialkoxysilane compound expressed by the equation (I) where $n=1$ and a tetraalkoxysilane compound expressed by the equation (I) where $n=0$; and relative proportions of said compounds are 2.0-6.0 mols of said monoalkyl trialkoxysilane compound with respect to 1 mol tetraalkoxysilane compound.

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Cont.

22. (new) A method for forming a coating film as defined in claim 14, wherein said raw material is an organic SOG obtained by hydrolyzing and condensing into an organic solvent under an acid catalyst a monoalkyl trialkoxysilane compound expressed by the equation (I) where $n=1$, a dialkyl dialkoxy silane compound expressed by the equation (I) where $n=2$, and a tetraalkoxysilane compound expressed by the equation (I) where $n=0$; and relative proportions of said compounds are 0.5 – 4.0 mols of said tetraalkoxysilane compound and 0.5 – 4.0 mols of said monoalkyl trialkoxysilane compound with respect to 1 mol of said dialkyl dialkoxy silane compound.